

## Abstract

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A carbon nanotube-dispersed polyimide saturable absorber excellent in an optical quality, obtainable by mixing a carbon nanotube dispersion liquid comprising a carbon nanotube, an amide-based polar organic solvent, and a nonionic surfactant and/or a polyvinylpyrrolidone (PVP) with a mixture solution of a solvent soluble polyimide and an organic solvent. A method for producing the same, comprising the steps of dispersing a single-walled carbon nanotube in a mixture solution of an amide-based polar organic solvent and a nonionic surfactant under intensive stirring, mixing the resultant dispersion liquid with a polyimide mixed organic solvent, and removing the solvent.